

AMS:

Symptoms:

- gastrointestinal symptoms (nausea, vomit, loos) – late in the evening or bedtime
- persistent headaches
- fatigue
- loss of appetite
- dizziness
- hard to sleep
- Anything below 85 is usually a low reading. And 83 is not 85. If it is below 85, take steps.

Cure:

- 250 mg of Diamox + 500ml water (rest for an hour) – repeat every 4 hours
- Supplemental Oxygen
- Take 250mg Diamox and 1mg Dex before sleeping (even in cases of mild AMS, Dex is useful in small doses.)
- Continue trek – take 250mg Diamox every 12 hours
- If still have symptoms - Continue to descend until you have got yourself to an altitude of around 8,000 feet. This may take time. But the good thing is that with every 1000 feet that you descend you'll feel better. Just because you start feeling better, do not stop your descent. An abrupt stop can make your AMS come back.
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HAPE:

Accumulation of fluids in lungs. The trekker's lungs are drowning in his own body fluids.

Symptoms:

- AMS + difficulty in breathing
- Can happen without AMS
- Absolutely exhausted
- Breathing is heavy even with mild activity
- Coughing (lot, dry)
- When you put your head to his chest, you'll hear a **rattling, gurgling noise**.
- blue-ing nails and lips
- Pulse oximetry can aid in making the diagnosis; oxygen saturation levels will be at least 10 points lower in HAPE patients than in healthy people at the same elevation.
- Oxygen saturation values of 50%–70% are common.

Worsens at night. Advances very quickly

Cure:

- 500 mg of Diamox immediately
- Supplemental Oxygen
- 20 mg of Nifedipine (10mg, wait 20 mins then 10mg) - Within 30 minutes of the second 10 mg, you should be able to breathe easier. You'll see symptoms reducing within 30 minutes after administering the medicine.

- Start descending. You should try to lose as much altitude as possible over the next three hours. If you cannot reach around 8,000 ft even after six hours, repeat the dose of 500 mg Diamox and 20 mg Nifedipine and continue descending.
- Concurrent use of multiple pulmonary vasodilators is not recommended. Descent and oxygen are much more effective treatments than medication.

HACE:

Brain starts to swell. Brain fills with fluid

Symptoms:

- Headache doesn't go with medication
- they generally talk excitedly or show irritation. Their behaviour is sometimes quite irrational.
- walk woozy – loss of muscular coordination
- struggling to talk, hallucinate, unable to see clearly.

Cure:

- 500 mg dose of Diamox and around 4mg of Dex. Dex gives you almost immediate relief.
- Supplementary Oxygen
- Try to get to an altitude around 8,000 feet as soon as you can. If you still cannot reach lower altitudes after six hours, repeat the same dose and continue your descent
- Once you have reached a lower altitude, lower your dosage of Dex to 2 mg, followed by 1 mg every 6 hours. Dex needs to be weaned away and cannot be stopped immediately.
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Medication:

Diamox is a diuretic. To put it simply, it helps speed up acclimatisation.

Side effect - You feel a numbness/tingling sensation in your hands and feet. You pee more often (which means the medicine is doing its job). Some claim that they get a bit of loosies after Diamox. Generally, a Digene takes care of this.

Dexamethasone (Dex) is a steroid. It prevents your body from releasing substances that cause inflammation. That's how it helps temporarily treat edema.

Also a steroid, gives sudden boost of energy.

Nifedipine is a drug that reduces your blood pressure. You use it only if you have HAPE. Nifedipine reduces the pressure in your heart and blood vessels. It gives you some basic relief and enough time to descend to a lower altitude.

Take Nifedipine even if you have low BP. Will not cause harm in controlled doses. It's either Nifedipine or death.

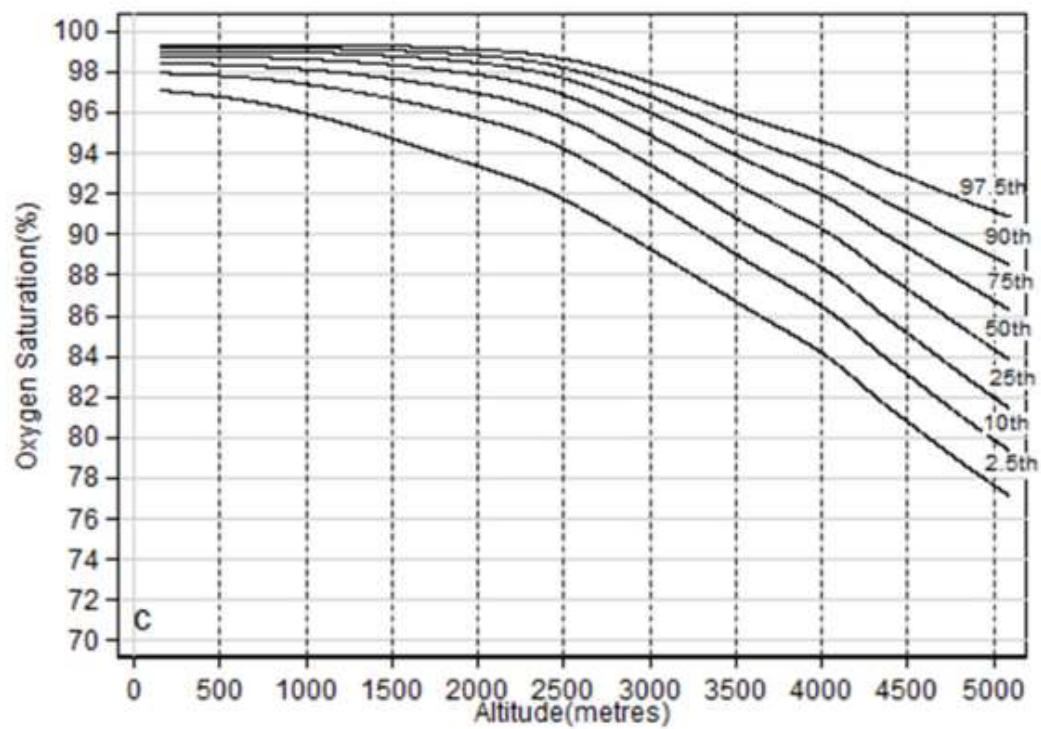
Prevention:

AMS:

- Diamox - Start with a dosage of 125 mg (half a tablet) every 12 hours 2 days prior to your trek (usually when you arrive at Delhi). Increase it to 250 mg (full tablet) every 12 hours from the day you get to the base camp and continue until you complete the trek.
- Dex - This is a steroid and reduces muscle inflammation in the body. It does not help speed up acclimatisation per se. So if you get hit by AMS, take Dex as an alternative. The dosage is 4 mg every six hours.
- Drink lots of water, urine should be colourless
- Low salt, Eat light, carb heavy dishes – avoid protein. High protein is harder for your body to break down.

Table 4-05 Recommended medication dosing to prevent & treat altitude illness

MEDICATION	INDICATION	ROUTE	DOSE
Acetazolamide	AMS, HACE prevention	PO	125 mg twice a day; 250 mg twice a day if >100 kg body weight Pediatric: 2.5 mg/kg every 12 hours, up to 125 mg
	AMS treatment	PO	250 mg twice a day ¹
Dexamethasone	AMS, HACE prevention	PO	2 mg every 6 hours or 4 mg every 12 hours Pediatric: do not use for prophylaxis
	AMS, HACE treatment	PO, IV, IM	AMS: 4 mg every 6 hours HACE: 8 mg once, then 4 mg every 6 hours Pediatric: 0.15 mg/kg/dose every 6 hours up to 4 mg
Nifedipine	HAPE prevention	PO	30 mg SR version every 12 hours or 20 mg SR version every 8 hours
	HAPE treatment	PO	30 mg SR version every 12 hours or 20 mg SR version every 8 hours



For adults 18-50 (acclimatized)